Appl. No. 10/106,0008 Amdt. Dated August 19, 2003 Reply to Office Action of May 19, 2003 Attorney Docket No. 81839.0108
Customer No.: 26021

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of the Claims:

Claims 1-13 (Canceled)

- 14. (Currently Amended): A method for producing a semiconductor wafer by polishing a surface of the semiconductor wafer which is held at its back surface, which determines a back surface profile and analyzes its frequency to calculate its power spectrum density at least before holding the semiconductor wafer, and polishes only a semiconductor wafer having undulation components on wafer back surface of 10 µm<sup>3</sup> or less represented in terms of power spectrum density at least for the components at a wavelength of 10 mm and/or a variation of power spectrum density of 2.0 or less for undulation components at a wavelength of from 3 mm to 20 mm of the wafer back surface.
- 15. (Previously Presented): The method for producing a semiconductor wafer according to claim 14, which utilizes a semiconductor wafer having wafer warpage of 20 µm or less.
- 16. (Previously Presented): The method for producing a semiconductor wafer according to claim 14, which utilizes a silicon semiconductor wafer.
- 17. (Previously Presented): The method for producing a semiconductor wafer according to claim 15, which utilizes a silicon semiconductor wafer.